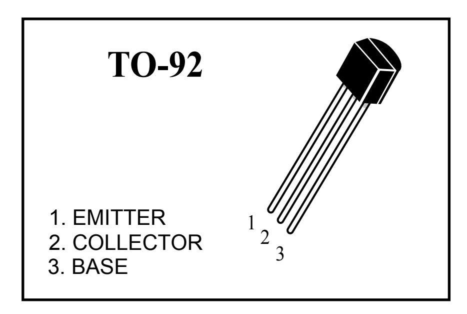


A1015

PNP General Purpose Transistors

Lead(Pb)-Free



MAXIMUM RATINGS* (T_A=25°C unless otherwise noted)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-50	V
Collector-Base Voltage	V_{CBO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5.0	V
Collector Current Continuous	I_C	-150	mA
Total Device Dissipation T_A=25°C	P_D	0.4	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 to + 150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit

OFF CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage, I_C = -100µA, I_E = 0	$V_{(BR)CBO}$	-	-50	V
Collector-Emitter Breakdown Voltage, I_C = -0.1mA, I_B = 0	$V_{(BR)CEO}$	-	-50	V
Emitter-Base Breakdown Voltage, I_E = -100µA, I_C = 0	$V_{(BR)EBO}$	-	-5.0	V
Collector Cut-off Current, V_{CB} = -50V, I_E = 0	I_{CBO}	-	-0.1	µA
Collector Cut-off Current, V_{CE} = -50V, I_B = 0	I_{CEO}	-	-0.1	µA
Emitter Cut-off Current, V_{EB} = -5.0V, I_C = 0	I_{EBO}	-	-0.1	µA



ELECTRICAL CHARACTERISTICS (T_A=25 ℃ unless otherwise noted) (Countinued)

Characteristics	Symbol	Min	Typ	Max	Unit

ON CHARACTERISTICS

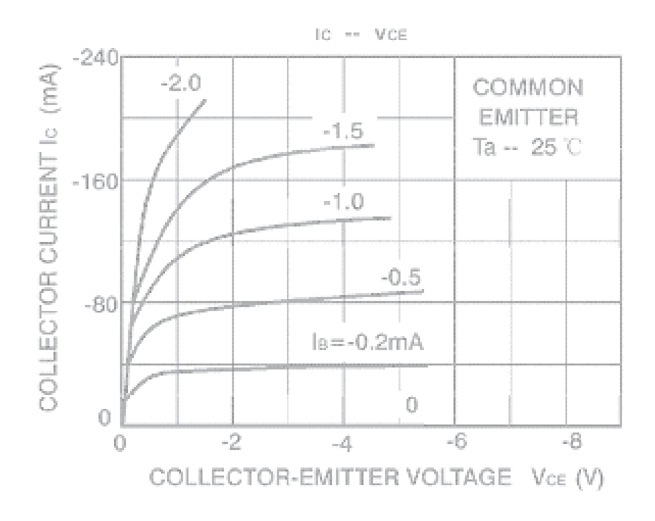
Characteristics	Symbol	Min	Typ	Max	Unit
DC Current Gain V_{CE}=-6.0V, I_C=-2.0mA	h_{FE1}	70	-	400	-
Collector-Emitter Saturation Voltage I_C=-100mA, I_B=-10mA	$V_{CE(sat)}$	-	-	-0.3	V
Base-Emitter Voltage I_C=-100mA, I_B=-10mA	$V_{BE(sat)}$	-	-	-1.1	V
TransitionFrequence V_{CE} = -10V, I_C = -1mA, f = 30MHz	f_T	80	-	-	MHz
Collector Output Capacitance V_{CB} = -10V, I_E = 0, f = 1MHz	Cob	-	19	-	pF
Noise Figure V_{CE} = -6V, I_C = -0.1mA, Rg = 10kΩ, f = 1KMHz	NF	-	-	6	dB

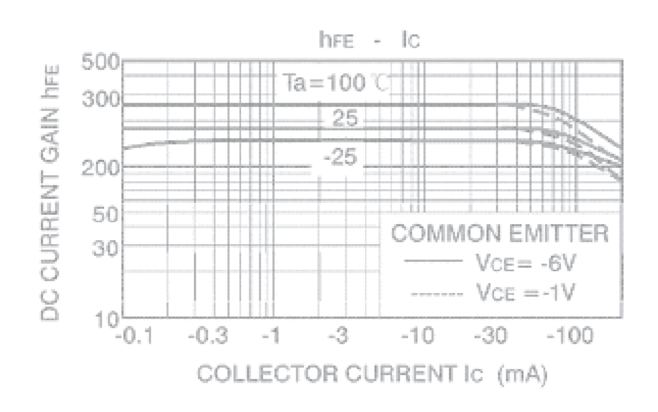
CLASSIFICATION OF h_{FE1}

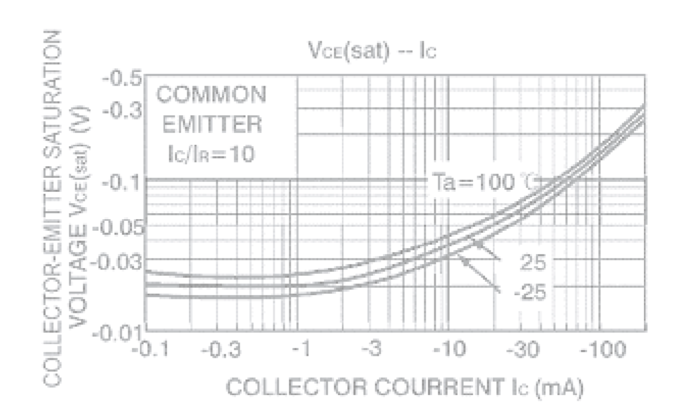
Rank	O	Y	GR
Range	70-140	120-240	200-400

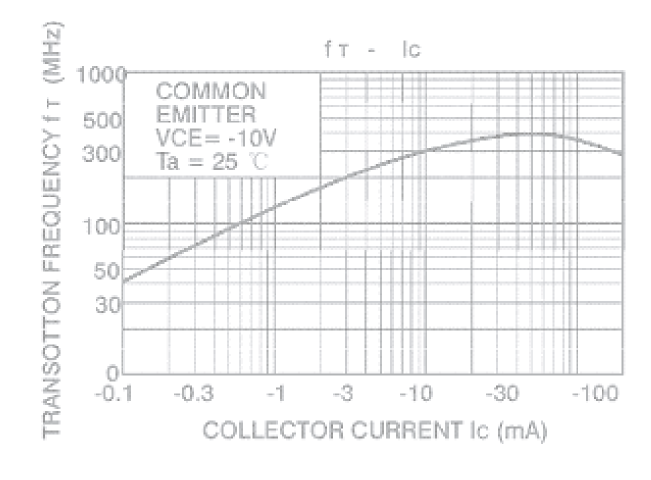


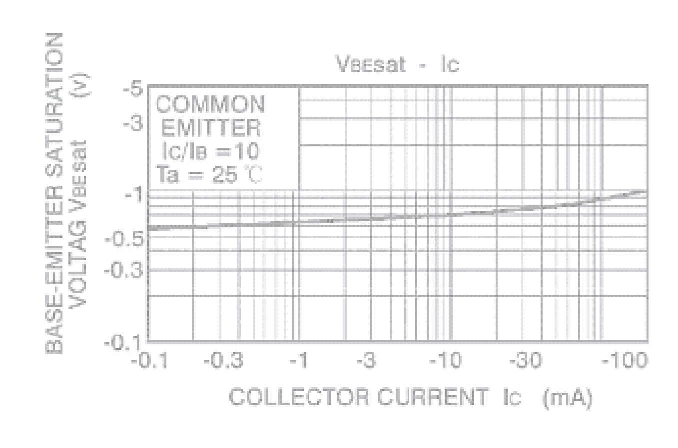
Typical Characteristics

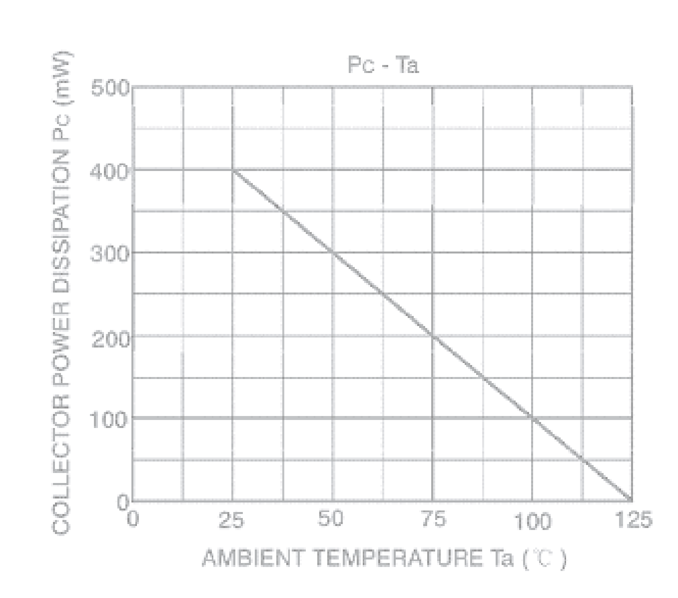






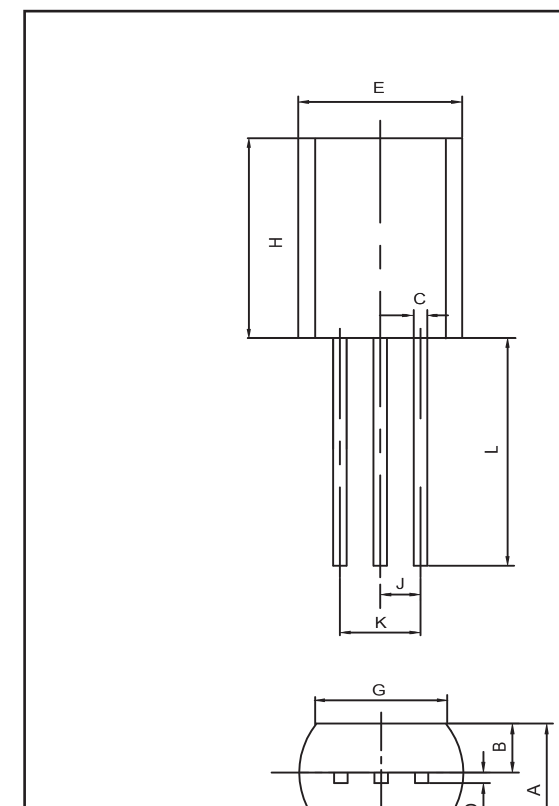






TO-92 Outline Dimensions

unit:mm



TO-92		
Dim	**Min**	**Max**
A	3.30	3.70
B	1.10	1.40
C	0.38	0.55
D	0.36	0.51
E	4.40	4.70
G	3.43	-
H	4.30	4.70
J	1.270TYP	
K	2.44	2.64
L	14.10	14.50